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LITHOGRAPHIC ABSTRACTS, SEPTEMBER 1961

PHOTOGRAPHY, TONE & COLOR CORRECTION

655.303

SURVEY OF COLOR PROVING SYSTEMS. John M. Lupo, Jr. Modern Lithography 29, No. 4, April 1961, pp. 64, 66 (2 pages). Power proving is a lengthy and costly operation. Substitute procedures are divided into (1) superimposure and (2) overlay types. Five such types are explained and their properties presented in a table. The five are: 1. watercote; 2, proofkote; 3. ozachrome; 4. colomat and 5. color proof.

612.84

SEEING COLORS. J. Bergmans. (Translated from the Dutch by T. Holmes, Eindhoven. Book published by The Macmillan Company, New York, 1960. 92 pages. $3.00) Journal of the Optical Society of America, Vol. 51, No. 4, April 1961, pp. 465-466 (2 pages). Part of a series of the Philips Technical Library. It is the outgrowth of 25 years of study, gathering of data and teaching the subject.

655.32 : 655.322

TONE REPRODUCTION IN OFFSET LITHOGRAPHY. V. G. W. Harrison. Journal of Photographic Science, Vol. 9, No. 1, January/February 1961, pp. 1-13 (13 pages). Investigations into the tone reproduction of offset lithographic processes are reviewed. The ideal contact screens for deep-etch plates are described and the effect of platemaking variables on dot size are discussed. The properties of the paper used for printing are shown to have an important influence on highlight and shadow contrast. Finally, it is shown that similar type screen negatives are required both for deep-etch plates and powderless etched letterpress blocks.

770.23

MONOBATHS AND STABILIZED PROCESSING. Herbert P. Paschel. Modern Lithography 29, No. 4, April 1961, pp. 73, 147, 149 (3 pages). In answer to a question on the subject, the relationships of these two methods to the fixation of the photographic image are explained. Monobath combines developer and fixer in one bath. Stabilization is explained as altering the residual silver salts to destroy their light sensitive properties without removal from the emulsion. Monobaths as yet do not meet the requirements of line and halftone negatives.

655.312

CHECKING COLOR SEPARATION FOR PHOTOENGRAVING. John T. Wrigley. The Photoengravers Bulletin 50, No. 9, April 1961, pp. 65-67 (3 pages). Suggests the use of color swatches and gray scale, also carefully kept records.

535.6

INSTRUMENTS PROVE SUPERIOR TO EYE IN MEASURING COLOR. Anon. Printing Production 91, No. 7, April 1961, pp. 63, 90 (2 pages). "Color recording and measuring instruments should always be used to make up for the poor color memory of the human eye when accurate, permanent color records are required." Report on a color control seminar at Rochester Institute of Technology. The C.I.E. color system, light sources and instrumentation are discussed.

655.302

*COMPARISON OF COLOR VALUES BETWEEN ORIGINAL COPY, TRANSPARENCY AND PROOF PRINT STANDARDIZATION OF EXPOSURE (OR VIEWING) CONDITIONS. Dr. Gerhard Isert. Der Polygraph, 8, April 20, 1961, pp. 461-3 (3 pages). Article in German. 5 illustrations, 1 table.

PICTURE TRANSMISSION AND THE PRINTER. Anon. The Litho-Printer 4, No. 4, April 1961, pp. 195-196 (2 pages). Some details are given on picture transmission and on the whole newspaper transmission project of Asahi Shimbun in Japan. For general printing purposes, facsimile transmission could be used for rapid transmission of page layouts, copy instructions and the like. Transmission between city offices and distant printing plants is mentioned. 4 illustrations of equipment.

655.303

SCALING & PREPARING PHOTOGRAPHS FOR HALFTONE SHOOTING. Charles C. Ball. (3rd of a series on copy preparation) Graphic Arts Monthly 33, No. 4, April 1961, pp.112, 14, 16, 18, 20, 168 (6 pages). These operations should be done before sending copy to camera room. Instructions for identifying photos, marking cropping, planning scaling for larger or smaller reproduction, correction of off square, etc. are given. 5 illustrations.

655.303

THE SLIDE RULE AND THE SIZING OF ORIGINALS. Anon. Print in Britain 8, No. 12, April 1961, pp. 378-379 (2 pages). Three methods are given for marking the desired size of reproduction on originals. Difficulties resulting from specifying sizes in ems are cited. A slide rule can be used in two different ways and methods are given for where the cut area is free and where it is fixed. 3 illustrations.

PLANOGRAPHIC PRINTING PROCESSES

655.329 : 655.324

LONG RUNS AND HIGH SPEEDS OF WEB PROCESS CALL FOR SPECIALIZED PLATES. Anon. Printing Magazine 85, No. 4, April 1961, p. 84 (1 page). Long runs call for bimetal and trimetal plates. The Levey, P.D.I. and LTF copperized aluminum deep-etch plates are described.

655:325 : 655:326

BLINDNESS PREVENTION IN PRESENSITIZED PLATES. Eugene C. Bulinski. Graphic Arts Monthly 33, No. 4, April 1961, pp. 130, 132, 134, 136 (4 pages). In answer to question, author cites a number of reasons. Some are: use of stained negatives or positives, use of wrong masking paper, too thick taping and other causes of poor contact, improper plate exposure, wrong fountain solutions, improper packing and other press adjustments.

655.325

*CHEMISTRY OF PLATEMAKING. Michael H. Bruno. Archives Printing, Paper and Kindred Trades 97 (6), No. 3; Autumn-Winter 1960, pp. 405-8, 411-17; No. 4, pp.488, 491-8, 501-2; Bulletin of the Institute of Paper Chemistry, Vol. 31, No. 8, April 1961, pp. 1169-1170. Chemical processes in the preparation of printing plates (offset plates) are involved in the production of the image by light and in the wetting of the image and non-image areas by ink and water, respectively. Light sensitivity is discussed primarily for bichromated coatings, since these are still in greatest use today and because factors affecting the sensitivity of other organic coatings (diazo and resin, e.g., Kodak Photo Resert) and electrostatic processes (such as Xerox and Electrofac) are incompletely understood. Reasons are given for the popularity of gum arabic over PV alcohol and other colloids in the preparation of photopositive (deep-etch) plates in the U.S. and for the widespread use of the negative photocopying process developed by the Lithographic Technical Foundation, as compared with the use of deep etched and bimetal offset plates. Differences in the performance of bichromate-albumin or bichromate-casein coatings are traced to six

factors, viz., the bichromate:colloid ratio, the pH (alkalinity) and thickness of the film layer, the time elapsed between preparation and use of the dried copying layer and temperature and relative humidity. The application of the LTF sensitivity meter for determining the effects of these variables on the sensitized layer prior to mounting the plate in the press is described. Plate wettability phenomena are discussed with emphasis on various plate-etching solutions and processes, such as Nital, cellulose gum, tannic-alum, and related solutions and the Cronak and Brunak solutions and processes developed by LTF.

655.326

RUBBERIZED CLOTH HELPS TO MINIMIZE PRODUCTION PROBLEMS. Anon. Southern Printer and Lithographer 37, No. 12, April 15, 1961, p. 40 (1 page). Use of rubberized cloth as offset blanket packing has cut packing paper cost in half, minimized creep of packing and reduced blanket damage from smash-ups. Data on the material used, placement in the packing, etc. are given.

655.326 : 655.329

PROPER PACKING ESSENTIAL TO LONG PLATE LIFE. Anon. Printing Magazine 85, No. 4, April 1961, p. 69 (1 page). Packing instructions for blanket-to-blanket web offset presses are given briefly. Minimum pressure is recommended.

655.324

ZINC WIPE-ON PLATES. Anon. The Lithographer and Offset Printer LVII, No. 4, April 1961, pp. 20-22 (3 pages). An exhaustive description of the results of LTF research. The use of the method is explained. An appeal is made for reports of experience from those who are using the plates.

655.324

A DETAILED REPORT ON WIPE-ON LITHO PLATES. Gyan P. Madan. Printing Production 91, No. 7, April 1961, pp. 48-50, 116 (4 pages). Quality of results indicates these plates are heading for close competition with presensitized plates. The nature of the plate and its coating are described. A table lists suppliers. Instructions for exposure include the use of the LTF Sensitivity Guide. Newest development is the LTF work on zinc wipe-on plates. A table presents advantages and disadvantages. 1 illustration, 5 tables.

PAPER AND INK

655.306

PAPER IN THE PRINTING PROCESS. R. R. Coupe. The Litno-Printer 4, No. 4, April 1961, pp. 209, 10, 15, 17 (4 pages). See also Print in Britain, Vol. 9, No. 1, May 1961, pp. 4-7 (4 pages) for the same article. Money spent on printability research is unreasonably small in relation to the problems involved and the amount of paper used by printers. Much knowledge is being gained but needs proper interpretation to become of value. Author explores the meaning of print quality and its relation to paper qualities and presents the results in the form of "Printability Charts" for offset and letterpress printing.

532.58

EVALUATION OF THE LARAY VISCOMETER FOR PRINTING INK CONTROL. Robert Bassemir. American Ink Maker 39, No. 4, April 1961, pp. 24-26, 60 (4 pages). Viscosity of printing ink must be measured and controlled. The Laray Viscometer is a French import which operates on the linear shear principle. Certain desirable modifications are mentioned and its operation described in detail. In an evaluation test

in comparison with a Sun Rotational Viscometer, it was found that the reproducibility was within ± 10%, which was considered satisfactory. 6 illustrations and diagrams.

676.2

ELECTRONIC FLAW DETECTION AND AUTOMATIC SORTING OF COATED PAPER. J. R. Gunning; M. P. MacMartin and D. R. Duncan. Pulp and Paper Magazine of Canada 62, No. 4, April 1961, pp. T-248-T-254 (7 pages). A device has been developed and constructed for inspection and sorting of coated paper. The paper is inspected while in the web, prior to being sheeted. A memory device stores the information from the inspection while the paper is being cut, and then a double overlaping tape delivery system separates rejected and accepted sheets into two piles. Two photomultipliers inspect an area on the paper 1/16 x 5/16 inch, and revolving mirrors scan this area across the web at a speed of 1500 feet per second. The signals from the photomultipliers are passed through appropriate circuits, so that signals due to paper flaws are stored in the memory, and circuit noise and random signals are eliminated. The memory device is mechanical and consists of a wheel geared to the cutter knife, with a number of pins in sockets equally spaced around it. Each pin represents a sheet of paper and the position of the pin in the socket indicates whether the sheet is acceptable or not. The switching mechanism of the tape delivery system operates to accept or reject the sheets of paper, depending on the position of the pins. The system has been in operation on a production basis for two and a half years and has been very satisfactory. A reduction in the female inspection staff has been accomplished and customer acceptance of the paper sorted by the device has been very good. 2 references, 10 illustrations.

655.306 : 667.5

PRINTING INK MANUAL - 1961 (book) W. Heffer & Sons Ltd. 3-4 Petty Cury, Cambridge, England. Written by a panel of 22 leading British experts under the guidance of the Society of British Printing Ink Manufacturers and the Oil and Color Chemists' Association. Price 70 s. (Review in Printing World, Vol. 168, No. 16, April 19, 1961, p. 435)

676.2

TINOPAL FLUORESCENT BRIGHTENERS. Anon. Geigy - Technica 2 (Geigy Industrial Chemicals) April 1961, pp. 20-23 (4 pages). Brief explanation of the action of fluorescent brighteners in paper. More than 70 such brighteners are listed in the Color Index. Structural formulae for 5 examples are given. 5 references, 2 diagrams.

676.235

NOW ... ON-MACHINE CAST COATING IN COLOR. Anon. Paper Trade Journal 145, No. 15, April 10, 1961, pp. 53, 56 (2 pages). Interstate Folding Box Co.'s "Glosscoat" process is described. Pastel colors and heavy weight high-gloss boards are possible. The cast coating is done on the cylinder machine. Certain advantages are claimed for the systems, such as: simpler machine, shorter drying time, etc. 1 diagram.

655.307 : 655.306

AUTOMATIC INK DENSITY MEASURING AND INK FEED CONTROL DURING THE PRESS RUN. Anon. Der Polygraph, 7-1961, April 5, 1961, pp. 336-8 (3 pages). Article in German. 2 diagrams.

655.326 : 655.329

WEB OFFSET VIEWED BY A PAPERMAKER. M. M. Muntz. Printing Magazine 85, No. 4, April 1961, pp. 74-75 (2 pages). To a papermaker a web offset press looks like a 3-part torture machine for paper. The important paper properties are: 1. tensile strength; 2. surface characteristics; 3. freedom from holes; 4. dimensional stability; 5. good rolls and splices and 6. good yardage factor. Each is discussed briefly.

655.329 : 655.326

PAPER PROBLEMS AND PAPER DEFECTS ENCOUNTERED IN WEB OFFSET OPERATION. Charles Shapiro. Printing Magazine 85, No. 4, April 1961, pp. 75, 98 (2 pages). Problems are basically the same for sheet and web, difference is in application. An example of a problem is moisture content, of a defect - picking. Another problem is that of proper rolls. Another defect is piling, usually resulting from running coated paper not intended for web offset. Wrinkles are another defect. Some figures are given on paper spoilage comparing web letterpress and web offset.

676.235

ON-MACHINE COATED PAPERS. William H. Bureau. Graphic Arts Monthly 33, No. 4, April 1961, pp. 32, 34 (2 pages). The growth of machine coated paper, book paper and container boards has been phenomenal. Several methods are described briefly. Requirements for the various processes are mentioned.

LITHOGRAPHY - GENERAL

655.329

WEB OFFSET PAST-PRESENT-FUTURE. Reginald F. Wardley. Printing Magazine 85, No. 4, April, 1961, pp. 66-67, 98-99 (4 pages). First efforts date back to about 1905 both in the U. S. and Europe. Other early history is given briefly. Present presses divide into standard sizes and specials. Types are listed as 1. open color unit; 2. blanket-to-blanket press; 3. semi-drum press; 4. the drum type press. Earlier work was not of the best quality, more recently quality is equal to sheet fed. Advantages of roll paper are cited and some figures given on losses characteristic of web operation. 2 illustrations.

655.32

LITHOGRAPHY LOOKS TO THE FUTURE. George A. Mattson. Modern Lithography 29, No.4, April 1961, pp. 57-58, 61, 145, 147 (5 pages). Developments in recent past include copperized aluminum deep-etch plates, bimetal plates, dampening systems, photo-composing, contact screens, masking, non-blinding lacquers, sensitivity guide and others. From 1954 to 1958, lithography increased 49%. Some advances from the management side are cited. For the future, the author comments on population growth and march of science and automation with resulting effects on the economy and manpower problems; research and engineering are exemplified in the PIA-LTF web-offset program which is explained as necessary to progress.

655.329

THE FUTURE OF WEB-OFFSET. Andrew P. Monroe, Jr. Modern Lithography 29, No. 4, April 1961, pp. 34-36, 149 (4 pages). Speeds in web-offset for central impression cylinder presses are now up to 1,500 feet per min. and for blanket-to-blanket presses up to 1,200 ft. per min. The central impression cylinder type is limited due to lack of flexibility to fewer than 10 installations. Web-offset shows lower plate and makeready costs and shorter web leads in comparison with letterpress and gravure. Multi-webbing and simultaneous backing are features of blanket-to-blanket printing. The folders used with web-offset presses are one of their big advantages. Much of the future of web-offset lies in the moderate size, flexible press for job press work and much development is in that direction. Some assets of web-offset bearing on the future are listed. 3 illustrations.

655.328

OFFSET PRESSES WITH AND WITHOUT CYLINDER BEARERS. Anon. Der Polygraph, 8-1961, April 20, 1961, pp. 427-8 (2 pages). Article in German - 5 illustrations.

655.328

NEW ROLAND DAMPING DEVICE GIVES FINE CONTROL. Anon. The Lithographer and Offset Printer LVII, No. 4, April 1961, p. 25 (1 page). Description of a "damping ductor blower", a tube fitted above the water feed roller through which compressed air is blown through a series of apertures at the feed roller. Each aperture is individually controlled and accurate control of the water supply is claimed. 1 illustration.

655.326

COMMENTS ON THE SEQUENCE OF COLORS IN FOUR COLOR OFFSET PRESSES. Anon. Der Polygraph, 8-1961, April 20, 1961, pp. 488-9 (2 pages). Article in German.

655.32 : 655.7

THE LITHOGRAPHER'S CONTRIBUTION TO BOOK PRODUCTION. Arthur Phillips. The Litho-Printer 4, No. 4, April 1961, pp. 226-228, 231, 233, 235 (5 pages). Encyclopedias, catalogues, telephone directories, children's illustrated books are among the types being produced by lithography. Reprints and work where reproduction pulls are used have advantages for lithography. A number of similar types of work are discussed and the advantages and disadvantages of lithography pointed out.

655.7 : 655.329 : 655.5

MAGAZINE CONVERSION SPECIALISTS. Hal Bergstein. Printing Magazine 85, No. 4, April 1961, pp. 68-69 (2 pages). Costs in the industrial publication field are forcing some publishers to consider web offset printing. One publisher with four trade journals of from 23,000 to 35,000 circulation and 64 to 322 pages has printed web offset for two years and found economy, on-time production and quality equal to letterpress. The operations involved in changing over and in converting from letterpress plates (via the Brightype method) are described. 3 illustrations.

655.329

WASTE IS SEEN AS DEFINITE FACTOR IN COSTING OUT WEB OFFSET WORK. Anon. Printing Magazine 85, No. 4, April 1961, p. 78 (1 page). Figures are given on constant and running wastes, the latter on the basis of length of run. Makeready costs are given in comparison with web letterpress and offset comes out ahead.

655.329 : 655.07

LTF CURRENTLY PREPARING TRAINING MANUAL FOR WEB OFFSET OPERATIONS. Anon. Printing Magazine 85, No. 4, April 1961, p. 79 (1 page). The lack of a supply of skilled pressmen is a drawback to web offset. LTF, with the cooperation of ANPA, PIA and web press manufacturers is developing material for in-plant use.

655.329

PROS AND CONS OF WEB OFFSET PROGRESS. Anon. Printing Magazine 85, No. 4, April 1961, pp. 82-83 (2 pages). Some of the pros; quality is up, less expensive and faster makeready, speed, lower paper costs, great flexibility, fewer paper problems (curl, tail or hook). Some cons: shortage of pressmen, paper and ink problems not completely solved, resistance to change on part of buyers, no short run work, paper waste, size limitations, etc. Each is discussed briefly.

655.329 : 655.07

RIT EXPANDS WEB OFFSET TRAINING PROGRAM TO MEET NEWSPAPERS' NEEDS. Anon. Printing Magazine 85, No. 4, April 1961, p. 118 (1 page). Story on program at Rochester Institute of Technology built around a 35 in. 4 on 4 ATF Webendorfer press used for the student newspaper. Small groups are preferred. 1 illustrations.

655.329

TWO TEAMS SETTLE ON WEB OFFSET TO PRINT WEEKLY GRIT. Anon. Printing Production 91, No. 7, April 1961, pp. 52-54, 78 (4 pages). Story on the decision of the weekly tabloid

"Grit" to change from stereotype letterpress to web offset. The paper is 79 years old, has a circulation of 900,000 to 1,000,000 with 42-48 pages in all but about 50,000 local circulation which can go to 128-136 pages. An extensive study was made of various processes and presses before arriving at a final decision. Four diagrams show press arrangements, web leads, etc.

655.03 : 655.329

GLOSSARY OF WEB OFFSET TERMINOLOGY. Anon. Printing Magazine 85, No. 4, April 1961, pp. 129, 134 (2 pages). Approximately 70 terms peculiar to web offset are defined. Examples: blanket-to-blanket, chopper fold, double ender, former, ribbon fold, school book perforating, sheeter, etc.

655.32

LITHOGRAPHY - BOLD NEW FRONTIER IN THE GRAPHIC ARTS. William Carmichael. Graphic Arts Monthly 33, No. 4, April 1961, pp. 88, 108 (2 pages). Some of the technical advances which have brought about a new peak in quality in recent years are listed. Freedom in art techniques, use of color, low composition costs for changes, ability to print on any surface, economies are among the advantages.

GRAPHIC ARTS - GENERAL

655.319 : 655.35 : 655.329 : 655.339

THE PRESENT AND FUTURE OF WEB PRINTING. Olin E. Freedman. Graphic Arts Monthly 33, No. 4, April 1961, pp. 6-8, 10, 12, 14 (6 pages). Web printing by all processes has been on the increase, offset particularly. Web offset has grown from a specialty to a highly standardized press with a 2 or 3 year backlog for builders. Encyclopedias are nearly all printed web offset. Forms are another web offset product. Gravure largely remains a publication press, with growth in smaller sizes predicted. Letterpress: flat-beds have lost out to web offset but web letterpress publications are being found successful in shorter and shorter runs. New plates will mean more web letterpress. Flexography is used in packaging, is growing in the envelope field and could get into commercial printing. Web presses are trending toward smaller, less expensive units for shorter run work than heretofore. Some of the advantages and problems of web printing are discussed.

655.7

PREPARING SPECIFICATIONS FOR TEXTBOOKS - Part I. Michael W. Bodden. Book Production - January 1961, pp. 40-1 (2 pages). Physical specifications for textbooks could cover other types as well. Company viewpoints on economy, editorial content and appearance can influence specifications. The main points to be covered in a specification would be composition, printing, plates, paper and binding. Design is made up of composition, paper and printing method. Each of these elements is discussed in relation to the use to which the book is to be put.

Part II - IBID, February 1961, pp. 48-9 (2 pages)

This installment involves the specification of production procedures in relation to the character of the book.

Part III - IBID, March 1961, pp. 60-1 (2 pages).

Specifications of production procedures are given in a step-by-step program. Some points covered are: sheet size, grain direction, binding style, signature planning, etc.

PART IV- IBID, April 1961, pp. 48-9 (2 pages)

This installment covers supplemental materials, work books, teachers' editions, overprinted pupils editions, etc. All have special problems which are discussed.

655.315

DAXENE ROTARY LETTERPRESS PLATES. Anon. Book Production, April 1961, pp. 54 (1 page). Describes a new flexible thermosetting polymer plate material with advantages in mold fidelity, machineability and speed of production. 6 illustrations.

655.313

OFFSET PROOFS FROM RELIEF PLATES. Nat Rosen. The American Pressman 71, No. 4, April 1961, pp. 44-45 (2 pages). Description of a method of obtaining a reversed or wrong reading proof from a letterpress proof press. The conventional paperpacking on the cylinder is replaced by a rubber blanket. 3 illustrations.

667.5

THE COLOR ADDITIVES AMENDMENT. Michael J. Dunn and Dr. Samuel Zuckerman. American Ink Maker 39, No. 4, April 1961, pp. 23, 56-57 (3 pages). A review of the law is given. It is pointed out that this is not to be confused with the food additive amendment. The new act clarifies several points, uses the "safety of use principle," lists some specific pigments, etc. Pigments covered are those used in foods, drugs and cosmetics.

655.325 : 655.312 : 655.86 :772.93

OPTICAL PRINT PROCESS FINDS GRAPHIC ARTS APPLICATIONS. Anon. Printing Production 91, No. 7, April 1961, pp. 55, 116-117 (3 pages). The RCA Electrofax process is described. Graphic arts applications include color map making and both letterpress and lithographic plate making.

655.28

AUTOMATIC MACHINE COMPOSITION - THE FIRST STAGE. Anon. The Litho-Printer 4, No. 4, April 1961, pp. 201-203 (3 pages). High speed machine composition via the Teletypesetter does not allow for automatic introduction of corrections. Two new systems with some promise in this direction are the BBR system from France and one apparently under development in Denmark. The first appears to be more versatile, also more complex and more expensive than the latter. The correction problem is explained in relation to an automatic system of composition. A few words of explanation are given on the BBR system.

655.04

SOLVENTS, SOLUTIONS, SAFETY. John Jachimiec. Boxboard Containers 79, No. 820, April 1961, pp. 21-22 (2 pages). Suggestions are given for safety in handling acids, chemicals of all kinds. Cleanliness is stressed.

655.307

TODAY"S ROLLERS AND CHEMICAL REACTIONS. William E. Yochheim. National Lithographer 68, No. 4, April 1961, pp. 34-35, 60 (3 pages). Commonly used rollers are made of synthetic rubber, vulcanized oils (form rollers). Plastic rollers have an attractive future. Rollers deteriorate due to absorption of ink ingredients and by oxidation causing them to become hard and glazed. Author discusses washup and solvents, also ink and fountain solution reactions. Proper care involves daily checking, proper cleaning and preventive measures of care. Suggestions are given on each.

655.255

TAPE-RECORDED PROOFREADING. Anon. British Printer 74, No. 4, April 1961, pp.94-96 (3 pages). Proofreading is the vital link between copy and the accurately rendered printed word. The traditional single person and dual methods of copyreading are described. Each has its shortcomings. By using a tape recorder the reader becomes his own copyholder, he reads the copy onto the tape and on playing back he can have both copy and proof in front of him. Advantages and disadvantages of the method are described. 2 illustrations.

655.302

MODERN CONVERSION METHODS. E. L. Thompson. Printing Magazine 85, No. 4, April 1961, pp. 76, 116 (2 pages). The methods discussed include: reproduction proofs most commonly used but can be subpar, quality can be improved; transparent and translucent proofs - limited use, can save a step in camera operations but limited in what can be used; double-offset transfer - results about equal to reproduction proofs; brightype - considerable flexibility and economy possible. 2 illustrations.

655.336

ON THE SPOT ROTO CYLINDER REPAIR SLASHES PRESS DOWNTIME. C. B. Taylor. Graphic Arts Monthly 33, No. 4, April 1961, pp. 36-38 (3 pages). Sending a damaged cylinder to an outside shop can be a real production bottleneck. After much search, the Dalic process was found in use in aircraft and missile work for controlled area plating. After a year of trial, author reports making a good portion of repairs right at the press in from 25 to 45 minutes. Some of the operations performed are described. 4 illustrations.

655.312

*ETCHING. John A. Easley and Charles W. Hopkins (Assigned to The Dow Chemical Co.,Inc.) U. S. Patent 2,979,387 - Application August 27, 1956 Official Gazette 765, No. 2, April 11, 1961, p. 511. The method of etching a photoengraving plate consisting of magnesium, magnesium base alloys containing at least 90 percent magnesium, zinc and zinc base alloys, containing at least 90 percent zinc, which comprises padding an etching bath comprising a mixture of (1) an aqueous solution containing from 3 to 20 percent by weight of nitric acid, from 0.1 to 2.0 percent by weight of an alkylaryl-sulfonate selected from the group consisting of the alkylbenzene sulfonates wherein the alkyl portion contains from 8 to 18 carbon atoms and the alkylnapthalene sulfonates wherein the alkyl portion contains from 3 to 18 carbon atoms and (2) a water immiscible organic liquid selected from the group consisting of petroleum hydrocarbons and hydrocarbon derivatives boiling within a range of 70° to 390° C. and substantially unreactive with the aqueous nitric acid solution and present in an amount of from 1 to 14 percent by weight of the aqueous nitric acid solution, said paddling being sufficiently vigorous to intermittently throw the bath against said plate in sheets and continuing this paddling action until the plate has been etched to a satisfactory depth.